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EHRLICH'S TEST IN TYPHOID FEVER.

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It had long been known that when amido derivatives of the hydrocarbons of the benzene series are treated with nitrous acid, compounds are obtained which, owing to their extreme instability, and the readiness with which they enter into combination with an almost infinite number of other bodies, especially with aromatic compounds, have become of great practical as well as theoretical importance.

Particularly interesting is the fact that a very large number of our dyes are derived from these bodies. They were discovered by Peter Griess, and termed by him diazo-compounds.

With the expectation of demonstrating by a color reaction, some of the aromatic bodies, the existence of which in the urine had been rendered highly probable by the researches of Baumann and Brieger especially (*Zeitschrift f. Physiol. Chemie*, Bd. 3), Ehrlich undertook a series of carefully conducted experiments in this direction.

A preliminary account of these investigations he published in the *Zeitschrift f. Klin. Med.*, Bd. 5, in 1882, which was followed by a more complete account of his results in the *Charité Annalen*, 8ter Jahrgang, in 1883.

The practical value of these, especially as regards their diagnostic importance in typhoid fever, has been the subject of much controversy, and it appears at the present day that the so-called Ehrlich's reaction is regarded by many as a medical curiosity of absolutely no diagnostic importance whatsoever; Petri and Penzoldt are the exponents of this side (Penzoldt, *Berl. Klin. Wochenschrift*, 1883; and Petri, *Zeitschrift für Klin. Med.*, 1884). The manner, however, in which these two observers entirely disregard the instructions, given by Ehrlich, in order to ensure success in the simple experiment, deprives their work of all value, for, as Ehrlich says, "there are but few tests in chemistry which cannot be spoiled by careless manipulation." (Ehrlich, *Deutsche Med. Wochenschrift*, 1883.)

A great deal of confusion has also undoubtedly arisen from the fact that the exact color, produced in the experiment, has either been described improperly, or simply spoken of as the "characteristic reaction," a term conveying no idea whatsoever. As the original work done by Ehrlich does not seem to be fully appreciated, it is my purpose here to describe the methods of testing which I have found most useful, and show that my results, on the whole, coincide with those which he obtained.

Since the preparation of chemically pure, crystalline diazo compounds is quite a difficult process, Ehrlich made use of the fact that sulphanilic acid, when treated with nitrous acid in a nascent state, forms in solution the diazo-benzene-sulphonic acid, which thus becomes the active principle in the mixture employed.

The sulphanilic acid used for this purpose, is the para-amido-benzene-sulphonic acid, prepared on a large scale, and used extensively in the coal-tar color industry,

Other compounds, of course, can also be used, as the meta-amido-benzene-sulphonic acid, the ortho and paratoluidine-sulphonic acids, and others, but among all these Ehrlich has found the common sulphanilic acid the most convenient.

Two solutions are employed and kept in separate bottles, the one containing 50 cc. of hydrochloric acid, which is diluted to 1000 cc. and saturated with sulphanilic acid, the other being a ½ per cent. solution of sodium nitrite.

To make the test, 40 cc. of the sulphanilic acid solution are taken in a measuring glass, and 1 cc. of the sodium nitrite solution added, the mixture being thoroughly agitated. The hydrochloric acid now acts upon the sodium nitrite, forming nitrous acid which, in a nascent state, forms the diazo-benzene-sulphonic acid by its action upon the sulphanilic acid. Small quantities of the sodium nitrite are used, and the absence of any free nitrous acid in the mixture is thus insured, and at the same time very small quantities of the diazo-benzene-sulphonic acid are formed—one of the principal requirements, to insure success in the experiment.

The reaction which thus takes place is represented as follows:

$$\text{I. } NaNO_2 + HCl = Na\,Cl + HNO_2$$

$$\text{II. } C_6H_4\begin{matrix}/NH_2\\ \backslash SO_3H\end{matrix} + HNO_2 = C_6H_4\begin{matrix}/N\!\!=\!\!\backslash\\ \backslash SO_3/\end{matrix}N + 2H_2O.$$

Para-amido-benzene-sulphonic acid. Diazo-benzene-sulphonic acid.

In his original article, Ehrlich advised the addition of this mixture to the urine, to be tested, in the proportion of 1:1 per volume. If ammonia is added in excess to the urine thus treated, the color play, presently to be described, occurs. In a later communication (*Charité Annalen*, Bd. 11, 1886,) he has modified this method by mixing one volume of urine with 5–6 vols.

of absolute alcohol, previous to the addition of the sulphanilic acid mixture, filtering, and then adding the acid mixture to the filtrate.

I have found it convenient to add about 50 cc. of absolute alcohol to 10 cc of urine, filtering and then running into the alcoholic urine, which has become more or less decolorized, the sulphanilic acid mixture from a burette; 20 cc. of the latter are then sufficient, added to about 30 cc. of the alcoholic urine; the addition of the acid in small quantities, for example, 2 cc. at a time, followed by thorough shaking of the urine, is at times advantageous, especially in typhoid fever, when the disease has advanced to a point at which the color reaction is no longer at its original intensity. By the addition of a few drops of ammonia to the final mixture, the characteristic color appears in typhoidal urine to disappear on shaking, and to become permanent after an excess of the ammonia has been added.

I have found a small Erlenmeyer's flask more convenient for holding urine than the ordinary test-tube, the exact shade of color being more apparent by transmitted light. With this modified method most of my experiments have been performed. There is, however, a third, which I consider more convenient, less expensive, and more delicate. A few cc. of urine are taken in a small test-tube, and an equal quantity of the sulphanilic acid mixture added, the whole being thoroughly agitated; 1 cc. of ammonia is then allowed to carefully run down the side of the tube, forming a colorless zone above the yellow urine, containing the acid, and at the junction of the two, a more or less deeply colored ring will be seen, the color of which is readily distinguished and noted, the slightest carmine tint being made out more readily by its contrast with the colorless zone above, and the yellow below, than when we are dealing with a uniform color.

This simple modification I recommend particularly, and as it occupies but a few minutes, I am sure it will be found especially convenient by the busy practitioner. As to the color-play which occurs in different kinds of urine, it will be observed that in normal, or pathological, but non-febrile urines, the color of the pure, or alcoholic urines, when method No. II is employed, remains either unaffected or is merely intensified by the addition of the ammonia; a deep orange tint may even be produced in this way, but is of no significance whatsoever, and easily enough distinguished from the typical color. Ehrlich records one exception to this general rule, namely, that in urines containing biliary coloring matters, an intensely dark, cloudy discoloration occurs at times which, upon boiling, is changed to an intense reddish-violet color.

In the course of my experiments I have met with another very interesting exception, but regret that I have but one observation to record on the case, which I owe to the kindness of Dr. Ogden of Milwaukee. The urine of this case contained a substance which reduced Fehling's solution, but did not reduce the subnitrate of bismuth, and merely produced a black discoloration, and in which the fermentation test failed completely. Undoubtedly this was one of the rare instances in which glycuronic acid, first isolated by Schmiedeberg and Mayer (*Zeitschrift f. physiol. Chemie*, Bd. 3, 1879), occurred normally in the urine. When Ehrlich's test was applied to this urine, according to the second method, described above, a dark brown color developed on standing for a quarter of an hour, which, at the end of an hour, became almost black. As regards febrile urines, Ehrlich observed the production of an intensely yolk-yellow color, which was even imparted to the foam when method No. I is employed, in rare instances of endocarditis ulcerosa, abscessus hepatis, and intermittens, especially, *i. e.* in diseases associated with well-marked chills.

Now, in typhoid fever, and this, of course, is the most important, a color occurs upon addition of ammonia, which may vary from an eosin to a deep garnet. Here I found method No. II, but particularly No. III, very useful, because with them the production of the faintest rose-tint is more readily perceived than when No. I is employed, owing to the fact that in the second method we are practically dealing with a primarily colorless solution, and in No. III, as above stated, we can take advantage of the contrasts.

If method No. I is used, and there be the least doubt as to the presence of the characteristic color, which may occur in the later stages of typhoid fever, the reaction may be said to be present when the foam which appears on shaking shows a reddish color, and especially when upon standing for 12–24 hours the superficial layer of the sediment shows a green color. This latter is found to be due to the transformation of the red soluble coloring matter into an insoluble green body. When the color is of its maximum intensity, of course no difficulty is experienced whatsoever in recognizing the presence of the characteristic reaction, the color being then of the most intense carmine or garnet shade.

That this reaction is not dependent upon the presence of any substance, normally present in the urine, Ehrlich seems to have established beyond a doubt, but as to the nature of the substance producing the reaction we have absolutely no knowledge. It is possible that a careful chemical study of the green sediment will lead to a clue as to the nature of this body, but this, of course, must be left to the hands of chemists.

Ehrlich has tested the urines of patients, afflicted with almost every known disease, and has arrived at negative results, with some exceptions, typhoid fever, of course, being the most important and interesting. At times, however, he has met with the same in some of the morbilli, and diseases in general characterized by high fever, as in severe cases of phthisis pulmonalis, although it may occur in the latter in the absence of fever, but when present for some time he regards it a bad omen.

Although I have tested the urine of almost every disease which has occurred in the medical wards of our hospital, besides a number of specimens taken from healthy individuals, I have only observed it in cases of typhoid fever and phthisis pulmonalis. Not having as yet had opportunity of examining specimens taken from contagious cases, I am unable to express any opinion on these. On phthisis pulmonalis I wish to report at some future occasion. I subjoin a summary of the typhoid fever cases in which Ehrlich's test has been used. The degree of reaction is noted as follows: III signifies very intense; II intense; I marked; I_{μ} faint.

Case I.—George N., aet. 35, admitted July 18th, the fifth day of disease. Reaction on the sixth, seventh, and eighth days. Patient left the hospital before recovery.

Case II.—Charles B. S., aet. 51, admitted July 2d, the 15th day of the disease. Death resulted on the 24th day of the disease. The reaction was very faint on the 16th–18th day, and absent on the nineteenth day.

Case III.—Thomas K., aet. 21, admitted July 8th. His primary illness lasted 20 days, and succeeding a period of 7 afebrile days, a relapse occurred lasting 11 days, the case ending in recovery. T = 100°–104° F.

On the 7th day of the disease the reaction was III.
" 8th " " " " III.
" 9th " " " " II.
" 10th " " " " I.
" 11th " " " " I_{μ}.
" 12th " " " " 0.

Method No. II was used. Not tested in the relapse.

Case IV.—Frederick T., admitted July 8th. His primary illness lasted 17 days, and succeeding a period of 13 afebrile days, a relapse occurred, lasting 11 days, ending in recovery. T = 100.2°–103.5°.

On the 6th day of the disease the reaction was III.
" 7th " " " " III.
" 8th " " " " III.
" 9th " " " " III.
" 10th " " " " II.
" 11th " " " " I.

Method II used. Not tested during the relapse.

Case V.—Charles E., admitted July 16th, with a possible relapse, the fever continuing uninterruptedly for 55 days, and ending in recovery. T = 100°–104.5°. On 16th day of disease reaction was 0. During relapse present for several days III. Method II used.

Case VI.—John M., admitted Aug. 21st, the fever lasting 35 days, ending in recovery. On 14th day of disease reaction was II.

Case VII.—Joseph D., admitted Aug. 21st. Death resulted on the 19th day. T = 100°–104°.

Reaction on the 10th day III.
" " 11th " II.
" " 12th " I_{μ}.

Case VIII.—Mary S., aet. 11, admitted Sept. 9th. Her primary illness lasted 27 days, and was followed by a relapse continuing for 12 days, ending in recovery. Method two used. Reaction absent throughout. This case and the following, also, occurring in a child, are my only ones in which the reaction, which was expected a priori, was negative. Both cases were of considerable severity, the fever remaining between 103° and 105° for some days.

Case IX.—Lizzie X., aet. 12, treated outside the hospital, the illness lasting 23 days. Reaction was not obtained after the eighth day.

CASE X.—Francis H., aet. 18, admitted Sept. 28th. Temperature gradually fell from 104° and ended in recovery.

On the 7th day of the disease the reaction was III.
" 8th " " " " III.
" 9th " " " " III.
" 10th " " " " III.
" 11th " " " " II.
" 12th " " " " I.
" 13th " " " " 0.

CASE XI.—John B., aet. 19, admitted Sept. 27th. T = 99.5°–102.5°, reached 104° once. Recovery.

On the 17th (?) day of disease the reaction was II.
" 18th " " " " I.
" 19th " " " " 0.

CASE XII.—Anton D., aet. 25, admitted Sept. 25th. T = 100°–105°. Reaction on the 13th day Iμ.

CASE XIII.—Albert S., aet. 55, admitted Sept. 23d. On 22d day of illness reaction was III; on 14th day the temp. had reached 97.5°–99.2°, probably indicating a pseudocrisis.

CASE XIV.—James McD., aet. 27, admitted Oct. 15th. A critical case, temp. 103°–105°, reduced by baths. Ring method used. Reaction present from the 15th–19th day II.

CASE XV.—Thos. O'D., aet. 23, admitted Sept. 20th. T = 100°–104°, often reaching 104°. Reaction on 15th day I.

CASE XVI.—John F., aet. 20, admitted Oct. 9th. Pseudocrisis on 19th day; temp. 100°–104°. On 16th day no reaction with method II. With ring method present II from 21st–24th day.

CASE XVII.—Samuel H., aet. 21, admitted Oct. 9th. Very mild case; temp. normal from the 11th day. Splenic enlargement still present on 16th day with normal temp. No reaction was obtained.

CASE XVIII.—Timothy M., aet. 24, admitted Oct. 9th. T = 99°–103°. Reaction present on the 7th and 8th days III; and on the 9th day II.

CASE XIX.—Otto K., aet. 22, admitted Oct. 6th. T = 100°–103°. On 10th day reaction I. Ring method, on 16th day, Iμ.

CASE XX.—James D., aet. 18, admitted Oct. 10th. T = 99.5°–104°. No reaction on the 22d day.

CASE XXI.—Charles B., aet. 27, admitted Oct. 15th.
Ring method on 18th day was II.
" 19th " II.
Ring method on 20th day was I.
" 21st " I.
" 22d " I.

CASE XXII.—Robert J., aet. 24, admitted Oct. 7th. T = 100°–102°. Mild case. Reaction 0 on 16th day.

CASE XXIII.—Annie S., aet. 28, admitted Oct. 13th. Critical case. T = 100°–104.5°.

Reaction with ring method III on 5th day.
" III " 6th "
" III " 7th "
" III " 8th "
" III " 9th "
" II " 10th "

CASE XXIV.—Maggie B., aet. 19, admitted Oct. 13th. T = 100°–105°. Critical case. Reaction with ring method present from 14th–21st day III–II.

CASE XXV.—Clara W., aet. 24, admitted Oct. 8th. T = 101°–104°.

Method two; reaction present on 5th day III.
" " " 6th " III.
" " " 7th " III.
" " " 8th " I.
" " " 9th " I.

CASE XXVI.—Ed. Y., aet. 13, admitted Oct. 14th. T = 101°–104°.

Reaction present on 7th day III.
" " " 8th " III.

From these cases it will be seen that the reaction was only absent in four cases, of which two were the children above mentioned, one a very mild case, lasting but eleven days, and one tested on the sixteenth day of the disease, at a time when the reaction is not always obtained and, in fact, is usually absent.

CONCLUSIONS.

I. The reaction may be obtained in cases of typhoid fever from the 5th–13th day without any difficulty with methods I and II.

II. With method III it may be observed as late as the twenty-second day, at a time when neither I nor II will yield absolute results.

III. Its absence from 5th–9th day indicates a very mild case, excepting in children, although this rule is probably not an absolute one.

IV. As it occurs previous to the appearance of the rash, it is a very useful aid in the diagnosis in typhoid fever.

NOTES ON NEW BOOKS.

The Latin Grammar of Pharmacy and Medicine, by D. H. ROBINSON, Ph. D., Professor of Latin Language and Literature, University of Kansas, with an Introduction by L. E. SAYRE, Ph. G., Professor of Pharmacy, University of Kansas. (*Philadelphia: P. Blakiston, Son & Co.*, 1890.)

The design of this neatly printed and attractive book is to meet the needs of first year pharmacy and medical students. It is intended that the student, while learning his Latin, shall learn at the same time the names of drugs and many of the formulæ for preparing medicines. It is in fact a Latin book for beginners, cast in a pharmaceutical mold. Instead of the time-honored *musa* which has musically beguiled so many children into a knowledge of the endings of the first declension, we are given *pilula, pilulae, pilulae, pilulam pilula pilula;* in the second declension *syrupus* and *extractum;* in the third declension we have *calx, adeps, enema,* etc.; in the fourth, *spiritus, haustus, potus,* etc.; in the fifth, *dies, abies,* etc. Under Exercises we have sentences like these: "He cures the sick with pleasant medicine." "Is the physician preparing cerate of lead for the farmer's son?" "Take twelve parts of the powder of catechu, eight parts of the powder of cinnamon, and eighty parts of diluted alcohol." "Levigation is the perfect trituration of moist substances," and other similar ones which gradually lead to reading lessons from the German Pharmacopœia, from Celsus, from Cato and from Galen. This method of preparing medical students and pharmacists for a practical use of the language is in every way to be commended. As long as Latin is used for prescriptions, pharmacists should know enough of it to read prescriptions readily and understandingly; at least they should not be puzzled by simple terms like *tinctura ejusdem, sapo domestica, super alutam extendum,* etc. It is a pity that all cannot study Latin for its own sake; where such study is not possible, but the knowledge must be acquired as an adjuvant, to use a pharmaceutical term, to a profession, this book is invaluable. It ought to be a text-book in all Colleges of Pharmacy and preliminary Medical Schools.

A Manual of the Practice of Medicine, by FREDERICK TAYLOR, M. D., F. R. C. P., Physician to, and Lecturer on Medicine at, Guy's Hospital. (*Philadelphia: P. Blakiston, Son & Co.*, 1890.)

This is a carefully prepared, thoroughly practical handbook, by a man of large experience as a teacher in one of the most practical schools of medicine in Europe. For the hard-working student, who has no time to study the larger text-books, this manual, with its concise and clear descriptions of disease, will prove very serviceable.

A Dictionary of Practical Medicine, edited by JAMES KINGSTON FOWLER, M. A., M. D., Fellow of the Royal College of Physicians. (*Philadelphia: P. Blakiston, Son & Co.*, 1890.)

One might have thought that Quain's Dictionary, which proved such a success, had covered this ground thoroughly; but Dr. Fowler and his coadjutors have evidently thought otherwise, and they have issued a very handy work, modelled upon the one referred to, but much more moderate in its dimensions. The articles are necessarily short, but they are carefully prepared, and in many cases well illustrated. It will prove a very useful book to the student, who in it has access to short and clear descriptions of all forms of medical affections.

PROCEEDINGS OF SOCIETIES.

THE JOHNS HOPKINS HOSPITAL MEDICAL SOCIETY.

Meeting of October 6th, 1890.

Dr. OSLER in the chair.

Hysteromyomectomy.—Dr. KELLY.

Dr. H. A. Kelly exhibited two patients upon whom he had performed hysteromyomectomy. The tumors were in both cases very similar—myomata as large as a man's head, with a circular constriction in the middle which received linea alba, while the larger masses lay on either side adapted to the greater capacity of the abdomen in the flanks. The tumors occupied the whole body of the uterus, leaving the cervix intact.

A pedicle was secured in each case by tying off both broad ligaments with a double set of ligatures, from without inwards, down under the tumors towards the cervix, and cutting between the ligatures, thus laying bare the pedicle which was next encircled in an elastic ligature, applied for the temporary purpose of cutting off the circulation of the uterine arteries while the tumor was cut away above and the stump formed.

The raw face of the stump, left by removing the myomatous mass, was cupped out, and the uterine canal in the middle burned out with the cautery. The next step was to complete the obliteration of this raw face on the stump by buried sutures of silk. In this way the cupped surface was reduced down to a wedge-shaped mass. The sutures along the angle of the wedge were left long and interrupted, as the stump thus sewed up was not to be dropped back into the abdominal cavity, but held, suspended by these sutures, in the lower angle of the abdominal incision.

The constricting rubber ligature was cut away, and as there was some persistent oozing of blood from both ends of the stump, the uterine arteries of both sides were tied about an inch below the top of the stump by simply transfixing a part of the stump on either side, the ligature thus passed being drawn tight, and of necessity including the arteries.

At this point, the method followed in these cases, departs from Schroeder's method, in that in the latter the stump thus carefully sutured is dropped back into the pelvis, while the speaker rendered the top of the stump—the apex of the wedge—extraperitoneal by joining the peritoneum of the adjacent abdominal wall to the stump by a continuous ligature all around and just below the line of ligatures on the surface.

The abdominal wound was closed down to the stump, with a drainage tube inserted, for from 2–3 days in each case, an inch above it.

At this stage of the treatment there was nothing left of the operation but a hole in the skin 2–3 cm. long at the lower angle of the incision, and at the bottom of this hole lay the narrow apex of the stump, fastened to the peritoneum. A pack of gauze around this and a pair of common long-nosed artery forceps across the wound grasping the ligatures on the face of the stump, suspended the whole and obviated the risk of its being dragged down into the abdominal cavity.

The patients were then exhibited. Both had recovered without fever, elevation of pulse or the slightest tympany. The pain was also but slight and of very short duration.

Dr. Kelly considered this the nearest realization of the ideal method yet proposed, avoiding the great dangers of dropping the large fleshy stump back among the intestines, and obviating, on the other hand, the unpleasant procedure of waiting for the stump to slough off, as in the ordinary extra peritoneal method.

Tubercular Peritonitis.—Dr. KELLY.

Dr. H. A. Kelly exhibited the specimens from a case of tubercular peritonitis, with the following remarks:

This is the third case of tubercular peritonitis, associated with tubo-ovarian disease, upon which I have operated in this hospital. Both of the previous cases recovered; the first was in a white woman with a large ovarian cyst of the left side, studded over with tubercle nodules. There was a primary tuberculosis of the right fallopian tube. Dr. Ghriskey was able here to demonstrate the bacillus tuberculosis.

The second was in a negress with a general tubercular peritonitis, with secondary involvement of the tubes. She had at the same time a right pleuritic effusion. This patient made a good recovery after removal of the tubes and ovaries with drainage.

In this third case Dr. Williams has been unable thus far to find the tubercle bacillus.

HISTORY.

J. S., colored, aet. 19 years, single, was admitted to the gynecological ward of the Hospital on the 9th of September, 1890. She was a nullipara and had never miscarried. Menstruation began in her sixteenth year, had been always regular, generally anticipating by three or four days, with slight amount of flow lasting four days, and accompanied, especially during the past year, with considerable pain.

Had never had any leucorrhœal discharge until six months ago when it came on suddenly and has continued constantly ever since; it is worse just previous to monthly periods. The bowels are regular. Micturition is at times painful; she has also sometimes an incontinence of urine.

No history of any severe attack of sickness until two years ago, when she was in bed two months, treated by her physician for a lung affection, with slight cough and at times a whitish expectoration which has persisted ever since. She "catches cold very easily." She has never expectorated any blood. The family history is negative. Mother and father and eight brothers and sisters are living in good health. An infant brother died a year ago "from lung trouble." Present illness dates from last May, when she was compelled to take to bed on account of pains and swelling of "stomach," "dead weakness" and inability to move about on account of increased pain. She was then treated by a doctor for inflammation of the stomach, remaining abed for eight weeks.

On admission she complained of suffering constant "misery" in abdomen, with frequent paroxysmal attacks of sharp pain in right ovarian region; constant backache; occasional severe headache; swelling of "stomach," which has continued since May, and fever.

She has had no diarrhœa or chills.

Patient was examined, per vaginam, and a diagnosis of adherent tubo-ovarian masses on both sides. During the eleven days before operation her temperature varied from 98° F. to 100°, pulse from 90–124. On October 6th abdominal section was performed when a condition of general tubercular peritonitis was revealed, and diseased tubal and ovarian structures removed.

Oct. 6th, 1890. The operation under ether anaesthesia lasted to completion 35 minutes. The abdominal incision measured 10 cm. The omentum was found adherent to the abdominal wall and to the pelvic brim. A characteristic bloody oozing from numerous vessels in abdominal incision was continuous. The omentum was released and portions 4-6 cm. in length tied and cut off. The peritoneum was found universally rough to touch, and everywhere studded with flat grayish, granular masses, from 5 to 2 mm. in diameter. No adhesions were found between intestines and omentum, but the former were lightly agglutinated among themselves. Two coils of intestine on right, and one on the left were found to be densely adherent to the diseased lateral uterine structures, the sigmoid flexure of the rectum was also adherent to the left mass. These adhesions were separated with the finger nail, sacrificing part of the coat of the tubo-ovarian tumor without injuring the coat of the bowel, and the actively bleeding points in the little roughened areas on the intestine were controlled by ligature. An area on the sigmoid flexure near its mesenteric attachment which bled actively was secured with a continuous suture bringing together the torn margins. The irregular tubo-ovarian mass on the right side was then elevated, and its pedicle transfixed, tied in both directions and cut off. The uterus had been completely concealed up to this point, being jammed forward and down in the pelvic cavity under the adhesions. It was found necessary owing to infiltration on the left side to whip off broad ligament. The pedicle was burned through by Paquelin's cautery. Its removal was followed by the escape of about 2 cc. of thick yellow pus at the cornu uteri. The end of the tube left behind in the grasp of the ligature contained about ½ cc. of same character of pus; this was also carefully cauterized.

The pelvis was irrigated by distilled water at a temperature of 110° F., a drainage tube inserted, and the wound closed by deep and superficial sterilized silk ligatures.

[The subsequent history of the case is given.] Oct. 7th. First dressing 11.30 a. m. Slight amount of bloody discharge on cotton immediately over

tube. The gauze plug in drainage tube saturated with the discharge. Small amount of bloody fluid swabbed from bottom of tube by means of sterilized cotton pledgets carried down with tube forceps.

Abdomen perfectly flat. General condition excellent. There has been no vomiting. T. 100°; P. 96.

Oct. 8th. Second dressing. 4.25 p. m. Scarcely any fluid in plug or in tube, which latter was turned. Abdomen slightly distended by flatus. No special complaints. Condition generally good. T. 99.2°; P. 84.

Oct. 9th. Third dressing. Lower third of plug saturated with bloody serous discharge. Tube removed and pledget of cotton saturated in bichloride 1–1000 left in tract. Line of union perfectly dry. Abdomen slightly tympanitic. Small movement this day by enema. General condition excellent. T. 99.5°; P. 80.

Oct. 14. All sutures removed. Union without suppuration. Line of wound covered with collodion iodoform.

Nov. 17th. The patient has had an uneventful convalescence. Her temperature has varied since the operation from 98.5° to 100.5°, on one occasion reaching 102.4° and on another 101°. During the past week there has been a more regular range of temperature, from normal in the morning reaching 100° to 100.5° in the evening.

Nov. 19th. The patient was examined by Prof. Osler and found free from tubercular disease of the lungs.

At present there is a small fistulous tract discharging a slight amount of serous looking fluid. Examination of sputum for tubercle baccilli has been negative. Patient has occasional slight cough and expectoration.

Abscess of the Liver, Perforation into the Lung; Amœba Coli in Sputum.—Dr. SIMON.

Dr. Simon reported the history of a third case of abscess of the liver, in which perforation had taken place into the lung, and in which the giant amœbæ were found in the expectoration.

The patient, a man aged 29, was admitted to Prof. Osler's ward October 5th, complaining of cough. He was a sailor by occupation, but lately had worked in a brickyard. He was in the West Indies in '83 and was then quite well. On May 1st he went to Flowertown, near Chestnut Hill, to work on a railroad. During the first two weeks he had constipation and then pains in the side, for which he took castor oil. He does not give a history of diarrhœa except when laxative medicine was taken. He had evidently, however, intestinal trouble, and about the end of June he was admitted to the Philadelphia Hospital. Soon after he began to cough, bringing up a blood-stained material, similar, he says, to that which he coughs up at present. He occasionally had a little blood in the stools at this time, but no diarrhœa.

He left the Philadelphia Hospital about Sept. 1st and returned to Baltimore. The cough and expectoration of bloody mucus continued, and he had two or three stools a day—small and containing mucus and blood. He had no chills, but fever at times and sweats. On the day of his admission the expectoration was noticed to be a peculiar rusty, reddish-brown color, purulent and resembling anchovy sauce. Actively moving amœbæ were found in it, a fact which at once called attention to the bowels and to the liver. Since his admission he has had no diarrhœa; usually one or two well-formed stools each day, in which were traces of blood and a little mucus and in which the amœbæ were found in great numbers. The liver was not enlarged anteriorly, but was considerably enlarged behind. There was dullness at the base of the right lung and feeble breathing, which, at the angle of the scapula, was tubular on deep inspiration with large rales but no definite signs of cavity. In addition to the amœbæ, the expectoration contained blood corpuscles, alveolar epithelium and elastic tissue; no tubercle baccilli. The temperature has been only slightly above normal. He has had no sweats. His cough has been of a very distressing character and is his only complaint. The case presents striking similarities to two others in which the amœbæ were found in the expectoration, and in one of which, as in this case, the diagnosis rested upon the detection of the amœbæ coli in it.

Dr. Osler said this case is extremely interesting from the fact that the diagnosis of his condition rested positively on the examination of the sputum. Our attention would never have been called to his actual condition by the character of the stools. As they looked perfectly healthy, with simply adherent mucus, we should probably have regarded the case, as it was regarded in the Philadelphia Hospital, one of pleurisy. The diagnosis of his liver abscess really rests upon finding the amœbæ in the expectoration.

Modified Sims Speculum.—Dr. ROBB.

Dr. Robb exhibited a modified Sims speculum, and said:

The tendency of the present day in making vaginal examinations by means of the speculum is to use only those especially adapted for the dorsal position, and, of these, Simon's is perhaps the most convenient. There is, however, a certain proportion of cases in which Sims' speculum is necessary, particularly when the latero-prone position is employed. To obviate the necessity of carrying several sizes of the duck-bill speculum, I have had the common straight-back variety made in two blades of unequal size. The smaller blade, which serves as the handle, is provided with two pivots, the anterior of which has a male shoulder. These pivots fit snugly and firmly into corresponding holes in a progressively graduated series of larger blades. These blades are retained in place by a slide similar to the one commonly used in the bulldog forceps, which can be pushed forward to catch the pivots until it rests against the shoulder upon the anterior pivot.

The particular advantages which such a speculum possesses are: 1st. It renders available several sizes with the smallest bulk of material.

2d. It can be easily packed for carrying and occupy very little space, the blades fitting each other like a nest of glass test tubes.

3d. It is cheaper than the same number of separate specula.

4th. The lock can be easily cleansed, and by means of sterilization it can always be made thoroughly aseptic. I hope to still further simplify the lock in the next set made.

Courty, in his book of 1883, "A Practical Treatise on the Diseases of the Uterus, Ovaries and Fallopian Tubes," page 137, pictures a speculum made by Charriere, of Paris, which he calls "the duck-bill specula, for the operation for vesico-vaginal fistula by the American method."

This speculum is not unlike the one I have had made; but entirely independent of any suggestion from this book; in fact I did not know of its existence until after I had this modification made. I do not claim any especial originality; its advantages are as have been stated.

A Case of Scrotal Hernia.—Dr. PHIPPIN.

Dr. Phippin presented a case of scrotal hernia in a colored patient where the hernial sac reached the level of the knees, and said:

This is a case of inguinal hernia of twelve years' duration. No operation has ever been attempted. The patient is now in the Hospital for observation merely. Until within the past three or four weeks he has been working regularly, and has carried the immense sac in a large bag, suspended from a belt around his waist. The sac contains both small and large intestines. The testicles can easily be felt in the most dependent part.

Specimens of Papilloma and of Epithelioma—So-called Parasitic Bodies in Epithelioma.—Dr. WELCH.

Dr. Welch presented gross and microscopical specimens of three tumors of the penis. Two were papillary fibromata, of large size, which had been removed by Dr. Halsted, and one was an epithelioma. Attention was called to the distinguishing characters of these two forms of new growth.

Microscopical specimens of carcinoma were exhibited which showed various intracellular formations apparently identical with some, at least, of the bodies which a number of recent observers have described as sporozoa or similar parasites. Microscopical sections of the epithelioma of the penis, made from pieces which had been placed immediately after removal in Fleming's solution, were particularly rich in these intracellular bodies. These bodies corresponded in appearance and behavior with coloring agents to many of those described by Sjöbring and by Siegenbeck van Heukelom. Most of them appeared as round or irregular masses, sharply differentiated from the protoplasm of the cancer cell enclosing them by a higher refraction index and by deeper staining with eosin and safranin. They varied in size from minute globules to masses which occupied the greater part of the cell. They occasionally lay in a vacuole within the cell. They sometimes contain one or more particles which stained deeply with hæmatoxylin. Round or irregular particles, staining deeply with hæmatoxylin, were sometimes found within cancer cells presenting normal nuclei. Some of the inclosed bodies were pale and did not stain deeply with any of the dyes employed, but were more or less sharply differentiated from the surrounding protoplasm. These pale bodies were usually about the size of leucocytes, or somewhat smaller, and frequently contained nuclear masses, resembling fragmented nuclei. It is not easy to give an accurate description of all of the various bodies or

formations which may be found in the cells of an epithelioma more or less sharply differentiated from the surrounding protoplasm.

Dr. Welch said that these and similar enclosures in cancer cells must be familiar to all who have made a careful study of epithelioma and that, while their nature cannot always be satisfactorily determined, it was entirely premature and unwarranted, on any evidence as yet brought forward, to regard them as sporozoa or other forms of parasites.

Many of these bodies, so far as flat-celled epithelioma is concerned, can be explained, (1) as masses of keratine, a part of the protoplasm having undergone in a circumscribed area the keratine metamorphosis, while the rest remains granular; (2) as irregular masses of eleidin or kerato-hyalin; (3) as included leucocytes undergoing degenerative changes, with or without fragmentation of nuclei; (4) as scattered nuclear fragments derived from the preceding.

Just as epithelioma is essentially an atypical growth of epithelium, so it is not surprising to find various atypical metamorphoses of the epithelial cells, such as partial transformation of the cell protoplasm into kerato-hyaline and into keratine.

HOSPITAL JOURNAL CLUB.

Regular meeting, Wednesday evening, October 8th, 1890, at 8 p. m. Eleven members present. Dr. Abbott in the chair.

Abstracts of the following papers were given:—

Gynecology and Obstetrics.—Dr. Robb.

Maladie de la Peau dite Maladie de Paget, par *Dr. Louis Wickham.*
(*The British Medical Journal*, Sept. 20th, 1890.)

Antisepsis in Midwifery.
(*The American Journal of Medical Sciences*, Sept., 1890.)

Vaginal Hysteropexy for the Cure of Retroflexion of the Uterus.
(*Annales de Gynécologie et d'Obstetrique*, June, 1890.)

Gynecology and Obstetrics.—Dr. Farr.

Fibro-myoma and Retroflexion of the Gravid Uterus. *Hooper.*
(*Australian Medical Journal*, No. 4, 1890.)

Puerperal Tetanus. *Markus.*
(*Prager medicinische Wochenschrift*, No. 21, 1890.)

A Case of Metastatic Ophthalmia in the Puerperal State, caused by Streptococcus Embolism. *Vossius.*
(*Zeitschrift für Geburthülfe und Gynäkologie*, Band XVIII, Heft 2.)

Cystopexy. *Tuffier.*
(*Le Mercredi Médical*, July 2, 1890.)

Hygiene and Bacteriology.—Dr. Abbott.

Ueber die Giftigkeit der Expirationsluft, von *Lehmann and Jessan.*
(*Arch. f. Hygiene*, Bd. X, Heft 3, 1890.)

Recherches sur la Diphthérie, par *Roux and Yersin.*
(*Ann. d. l' institut Pasteur*, Tome IV, No. 7, 1890.)

Die Färbung der Geisselen von Spirillen und Bacillen, von *Trenkmann.*
(*Cent. f. Bact. u. Parasitenkunde*, Bd. VIII, No. 13, 1890.)

Sur un Nouveau procédé de diagnostic différentiel du bacille d'Eberth.
(*La Semaine Med.*, 1890, No. 31.)

Regular meeting, Monday, October 27th, 1890. Seventeen members present. Dr. Abbott in the chair.

Abstracts of the following papers were given:—

Gynecology.—Dr. Ghriskey.

Surgical Treatment for Tuberculous Peritonitis. *M. Maurange.*
(*Nouv. Arch. d'Obstétrique et de Gynéc.*, Sept., 1890.)

Intra-Uterine Death and Placental Disease.
(*New York Medical Journal*, Oct. 25th, 1890.—Abstracted from *British Med. Journal.*)

Ether Drinking in Ireland. *Hart.*
(*British Medical Journal*, Oct. 18, 1890.)

Medicine.—Dr. Reese.

Femoral Phlebitis in Typhoid Fever. *S. C. Chew.*
(*Medical News*, Oct. 11, 1890.)

A Case of General Tuberculosis in an Infant: Primary Intestinal Infection. *Northrup.*
(*American Journal of the Medical Sciences*, September, 1890.)

Suppurative Periostitis after Typhoid Fever. *Achalone.*
(*British Med. Journal.* Originally from *La Semaine Medicale.*)

Secondary Effects of Diplococcus Pneumoniae. *Gabbi and Puntz.*
(*Centralbl. f. Bak'. u. Parasitenkunde*, Bd. VIII, No. 5, July 20th, 1890, p. 137.)

Surgery.—Dr. Roose.

Report on the Recent Progress of Snrgery. *H. L. Burrell, M. D., and H. W. Cushing, M. D.*
(*The Boston Medical and Surgical Journal*, October 2, 1890.)

PUBLICATIONS OF THE JOHNS HOPKINS HOSPITAL.

DESCRIPTION OF THE JOHNS HOPKINS HOSPITAL.

By John S. Billings, M. D., LL. D.

Containing 56 large quarto plates, phototypes and lithographs, with views, plans and detail drawings of all the buildings, and their interior arrangements—also wood-cuts of apparatus and fixtures; also 116 pages of letter-press describing the plans followed in the construction, and giving full details of heating-apparatus, ventilation, sewerage and plumbing.

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THE JOHNS HOPKINS HOSPITAL REPORTS.

Volume I, for 1889. (The publication of this volume has been postponed for several months owing to the time required for the preparation of additional plates.) It will contain the studies from the Pathological Laboratory.

There will appear articles on the following subjects: hemorrhagic infarction, repair of intestinal suture, reversal of the intestine, extirpation of the the thyroid gland in dogs, the effects of artificial heat upon animals, hog cholera, behavior of bacteria in water, bulbar paralysis, cerebellar sclerosis.

The volume will be provided with illustrations.

It will be edited by Dr. W. H. Welch, Professor of Pathology and Pathologist to the Hospital.

Volume II, for 1890. The second volume of the Hospital Reports began in January, 1890. They will contain pathological, medical, surgical and gynecological papers, and reports, details of cases, the technique of operations, etc. Subscriptions will be received for the volume of about 500 pages, at $5. The price of the separate fasciculi will vary with their size and the number of plates they contain. Nos. 1 and 2 [Medical Report for 1890, by Dr. Wm. Osler] are published at fifty cents each.

No. 3–4 [Report in Gynecology, by Dr. H. A. Kelly] is also now ready. It contains tabulations of laparotomies, of gynecological operations and urinary examinations, etc., also a description of the operating room and papers on the following topics: composite temperature and pulse charts of forty cases of abdominal section, the management of the drainage tube in abdominal surgery, the gonococcus in pyosalpinx, tuberculosis of the Fallopian tubes and peritoneum, ligature of the trunks of the uterine and ovarian arteries as a means of checking hemorrhage from the uterus, carcinoma of the cervix uteri in a negress, elephantiasis of the clitoris, kolpo-ureterotomy (incision of the ureter through the vagina for the treatment of ureteral stricture), etc. The price of this fasciculus is one dollar.

THE JOHNS HOPKINS HOSPITAL BULLETIN.

The Hospital Bulletin will contain announcements of courses of lectures, programmes of clinical and pathological study, details of hospital and dispensary practice, abstracts of papers read and other proceedings of the Medical Society of the Hospital, reports of lectures, and other matters of general interest in connection with the work of the Hospital. Nine numbers will be issued annually. The first number appeared in December, 1889. The subscription price is one dollar per year.

Subscriptions for the above publications may be sent to

The Johns Hopkins Press, Baltimore, Md.

Schedule of Hours of Medical Instruction, Commencing October 13, 1890.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
A. M. 9	General Medicine. Dr. Osler. (Hosp. Wards.)	General Medicine. Dr. Osler. (Hosp. Wards.) Surgical Operations. (Private Operating Room.) Dr. Halsted.	General Medicine. Dr. Osler. (Hosp. Wards.)	General Medicine. Dr. Osler. (Hosp. Wards.) Surgical Operations. (Private Operating Room.) Dr. Halsted.	General Medicine. Dr. Osler. (Hosp. Wards.) Surgical Clinic. (Amphitheatre.) Dr. Halsted.	General Medicine. Dr. Osler. (Hosp. Wards.)
9.30	Gynecological Operations. (Private Operating Room.) Dr. Kelly.		Gynecological Operations. (Private Operating Room.) Dr. Kelly.			Gynecological Operations. (Private Operating Room.) Dr. Kelly.
10	General Surgery. (Disp.) Drs. Halsted and Finney. Genito-Urinary Surgery. (Disp.) Drs. Halsted and Brown. General Medicine. (Disp.) Drs. Osler and Lafleur. Nervous Diseases. (Disp.) Drs. Osler and Thomas.	Gynecology. (Hospital Wards.) Dr. Kelly. General Surgery. (Disp.) Drs. Halsted and Finney. Genito-Urinary Surgery. (Disp.) Drs. Halsted and Brown. General Medicine. (Disp.) Drs. Osler and Lafleur. Nervous Diseases. (Disp.) Drs. Osler and Thomas.	General Surgery. (Disp.) Drs. Halsted and Finney. Genito-Urinary Surgery. (Disp.) Drs. Halsted and Brown. General Medicine. (Disp.) Drs. Osler and Lafleur. Nervous Diseases. (Disp.) Drs. Osler and Thomas.	Gynecology. (Hospital Wards.) Dr. Kelly. General Surgery. (Disp.) Drs. Halsted and Finney. Genito-Urinary Surgery. (Disp.) Drs. Halsted and Brown. General Medicine. (Disp.) Drs. Osler and Lafleur.	Gynecology. (Hospital Wards.) Dr. Kelly. General Surgery. (Disp.) Drs. Halsted and Finney. Genito-Urinary Surgery. (Disp.) Drs. Halsted and Brown. General Medicine. (Disp.) Drs. Osler and Lafleur. Nervous Diseases. (Disp.) Drs. Osler and Thomas.	General Surgery. (Hosp. Wards.) Dr. Halsted. General Surgery. (Disp.) Drs. Halsted and Finney. Genito-Urinary Surgery. (Disp.) Drs. Halsted and Brown. General Medicine. (Disp.) Drs. Osler and Lafleur. Nervous Diseases. (Disp.) Drs. Osler and Thomas.
11	Diseases of Children. (Dis.) Drs. Osler and Booker.	Diseases of Children. (Dis.) Drs. Osler and Booker.	Diseases of Children. (Dis.) Drs. Osler and Booker.	Diseases of Children. (Dis.) Drs. Osler and Booker. Nervous Diseases. (Disp.) Drs. Osler and Thomas.	Diseases of Children. (Dis.) Drs. Osler and Booker.	Diseases of Children. (Dis.) Drs. Osler and Booker.
M. 12	Lecture. (Amphitheatre.) Dr. Thomas. Commencing Jan. 1, 1891.	Lecture. (Amphitheatre.) Dr. Osler. Commencing Jan. 1, 1891.	Clinic. (Amphitheatre.) Dr. Osler.	Clinic. (Amphitheatre.) Dr. Kelly.		
P. M. 1.30	Diseases of Women. (Dispensary.) Drs. Kelly and Robb.	Diseases of Women. (Dispensary.) Drs. Kelly and Robb.	Diseases of Women. (Dispensary.) Drs. Kelly and Robb.	Diseases of Women. (Dispensary.) Drs. Kelly and Robb.	Diseases of Women. (Dispensary.) Drs. Kelly and Robb.	Diseases of Women. (Dispensary.) Drs. Kelly and Robb.
2	Diseases of the Throat and Nose. (Disp.) Dr. Mackenzie. Diseases of the Skin. (Dis.) Dr. Morison.	Diseases of the Throat and Nose. (Disp.) Dr. Mackenzie. Diseases of the Skin. (Dis.) Dr. Morison.	Diseases of the Throat and Nose. (Disp.) Dr. Mackenzie. Diseases of the Skin. (Dis.) Dr. Morison.	Diseases of the Throat and Nose. (Disp.) Dr. Mackenzie. Diseases of the Skin. (Dis.) Dr. Morison.	Diseases of the Throat and Nose. (Disp.) Dr. Mackenzie. Diseases of the Skin. (Dis.) Dr. Morison.	Diseases of the Throat and Nose. (Disp.) Dr. Mackenzie. Diseases of the Skin. (Dis.) Dr. Morison.
2.30	Eye and Ear. (Disp.) Drs. Theobald and Randolph.	Eye and Ear. (Disp.) Drs. Theobald and Randolph.	Eye and Ear. (Disp.) Drs. Theobald and Randolph.	Eye and Ear. (Disp.) Drs. Theobald and Randolph.	Eye and Ear. (Disp.) Drs. Theobald and Randolph.	Eye and Ear. (Disp.) Drs. Theobald and Randolph.
3			Clinical Lecture. (Amphitheatre.) Dr. Halsted. Commencing Jan. 1, 1891.			
4.30	Lecture. (Amphitheatre.) Dr. Hurd. Commencing Jan. 1, 1891.	Lecture. (Amphitheatre.) Dr. Kelly. Commencing Jan. 1, 1891.	Lecture. (Amphitheatre.) Dr. Councilman. Commencing Jan. 1, 1891.	Lecture. (Amphitheatre.) Dr. Abbott. Commencing Jan. 1, 1891.	Lecture. (Amphitheatre.) Dr. Welch. Commencing Jan. 1, 1891.	

The Pathological Laboratory, including the bacteriological rooms, is open daily (except Sundays) from 8 a. m. to 6 p. m. Opportunity is afforded for work in bacteriology, except on Saturday afternoons. Courses in Pathological Histology continue each during three months, occupying three afternoons from 2.30 to 5 p. m. each week. The present course beginning in October is held on the afternoons of Monday, Wednesday and Saturday. The Clinical Laboratory is open daily (except Sundays). The Hygienic Laboratory will be open during March, April, and May on Mondays, Tuesdays, Thursdays, and Fridays, from 9 to 12 a. m. The Hospital Medical Society meets on the first and third Monday of each month at 8 p. m. The Historical Club meets on the second Monday of each month at 8 p. m. The Journal Club meets on the fourth Monday of each month at 8 p. m.

STUDENTS FOLLOWING COURSES, ETC., IN THE JOHNS HOPKINS HOSPITAL.

RESEARCH WORKERS.

BERKLEY, H. J.	[M. D.]	1305 Park Ave., Baltimore.
BLACHSTEIN, ARTHUR GEO.	[M. D.]	New York, N. Y.
BOOKER, W. D.	[M. D.]	851 Park Ave., Baltimore.
CLEMENTS, A. W.	[D. V. S.]	213 W. Fayette st., Baltimore.
GHRISKEY, A. L.	[M. D.]	Johns Hopkins Hospital.
LAFLEUR, H. A.	[M. D.]	Johns Hopkins Hospital.
MILLER, C. O.	[M. D.]	312 W. Madison St., Baltimore.
RANDOLPH, R. L.	[M. D.]	211 W. Madison St., Baltimore.
THAYER, W. S.	[M. D.]	Johns Hopkins Hospital.
THOMAS, H. M.	[M. D.]	1228 Madison Ave., Baltimore.
WILLIAMS, J. WHITRIDGE.	[M. D.]	900 Madison Ave., Baltimore.

STUDENTS.

AMES, DELANO.		Washington, D. C.
BALTZELL, W. H.	[M. D.]	Johns Hopkins Hospital.
BROWN, JAMES.	[M. D.]	131 W. Lanvale St., Baltimore.
CROUCH, J. FRANK.	[M. D.]	1117 Forrest Place, Baltimore.
FARR, W. W.	[M. D.]	Johns Hopkins Hospital.
FLEXNER, SIMON.	[M. D.]	Louisville, Ky.
GAVIN, E. D.	[M. D.]	Church Home and Infirmary, Baltimore.
GIFFORD, J. C.		1221 Madison Ave., Baltimore.
HARVIE, JOHN B.	[M. D.]	Troy, N. Y.
HOCH, AUGUST.	[M. D.]	Johns Hopkins Hospital.
HOUSTON, D. W.	[M. D.]	Cohoes, N. Y.
HOWARD, W. T., JR.	[M. D.]	804 Madison Ave., Baltimore.
JENNEY, F. L. B.	[M. D.]	Chicago, Ill.
LATIMER, C.	[M. D.]	Cathedral St., Baltimore.
MCLAREN, D.	[M. S.]	Kansas City, Kan.
OPPENHEIMER, A. R.		426 N. Carey St., Baltimore.
OWINGS, E. R.	[M. D.]	1319 Madison Ave., Baltimore.
PARKER, E. M.	[M. D.]	New Bedford, Mass.
PHIPPIN, HARDY.	[M. D.]	Johns Hopkins Hospital.
REED, W.	[M. D.]	U. S. Army.
REESE, D. M.	[M. D.]	Johns Hopkins Hospital.
ROBB, HUNTER.	[M. D.]	Johns Hopkins Hospital.
ROOSE, W. S.	[M. D.]	Johns Hopkins Hospital.
RUSSELL, W. W.	[M. D.]	Minneapolis, Minn.
SIMON, C. E.	[M. D.]	Johns Hopkins Hospital.
SMITH, H. H.	[M. D.]	405 Courtland St., Baltimore.
WOOD, H. A.	[M. D.]	Waltham, Mass.
WRIGHT, J. H.	[A. B.]	Pittsburg, Pa.

BACTERIOLOGY.—DR. WELCH—DR. ABBOTT.

DR. BROWN.	DR. JENNEY.	DR. RUSSELL.
DR. CROUCH.	DR. PHIPPIN.	DR. WOOD.
MR. GIFFORD.	DR. REESE.	MR. WRIGHT.
DR. HOWARD.	DR. ROOSE.	

PATHOLOGICAL HISTOLOGY.—DR. WELCH—DR. COUNCILMAN.

MR. AMES.	MR. MCLAREN.	DR. REED.
MR. GIFFORD.	MR. OPPENHEIMER.	DR. RUSSELL.
DR. FLEXNER.	DR. OWENS.	DR. SIMON.
DR. JENNEY.	DR. PARKER.	DR. WOOD.
DR. HOCH.		

SURGERY.—DR. HALSTED.

DR. HARVIE.	DR. PARKER.	DR. RUSSELL.
DR. HOUSTON.	DR. REED.	DR. WOOD.
DR. JENNEY.		

MEDICINE.—DR. OSLER.

DR. HARVIE.	DR. LATIMER.	DR. RUSSELL.
DR. HOUSTON.	DR. PARKER.	DR. SMITH.
DR. JENNEY.	DR. REED.	DR. WOOD.

GYNECOLOGY.—DR. KELLY.

DR. GAVIN.	DR. JENNEY.	DR. RUSSELL
DR. HARVIE.	DR. PARKER.	DR. WOOD.
DR. HOUSTON.	DR. REED.	

JUDGE GEORGE WILLIAM BROWN.

A meeting was held on Monday, October 20, at 4 p. m., in Hopkins Hall, to testify respect to the memory of the late Judge George William Brown, one of the original trustees of the Johns Hopkins University, and also a trustee of the Hospital.

The meeting was composed of the Trustees and Faculty of the University, the Trustees and Officers of the Hospital and a few personal friends of the deceased.

Charles J. M. Gwinn, Esq., called the meeting to order, and read the following minutes:

I.

ACTION OF THE UNIVERSITY TRUSTEES.

At a meeting of the Trustees of the Johns Hopkins University held October 6, 1890, the following minute was adopted:—

Resolved, That this Board, deeply sensible of the loss which it has sustained by the death of George William Brown, lately one of its members, and knowing that the Board of Trustees of the Johns Hopkins Hospital shares its sorrow, requests the President of this University to give notice that a general meeting will be held, on such a day as he may appoint, of the Trustees of the University and Hospital, and of the Professors and Instructors in both institutions, to express the general sense of all connected with both foundations of the loss which they have sustained.

Resolved, That the minutes of such meeting, when it takes place, shall be recorded among the minutes of this Board.

GEORGE W. DOBBIN, *President.*
FRANCIS WHITE, *Secretary pro tem.*

II.

ACTION OF THE HOSPITAL TRUSTEES.

At a meeting of the Board of Trustees of the Johns Hopkins Hospital, held October 14th, 1890:—

The President desired to place the following minute upon record.

The President and Board of Trustees of the Johns Hopkins Hospital have suffered an irreparable loss by the death of George William Brown, one of the Trustees of this institution.

His high character, unfailing courtesy and patient attention to every duty which he was called upon to discharge, endeared him to all connected with this institution.

The President, Trustees, Officers and Instructors of the Hospital will assemble with their brethren of the Johns Hopkins University in Hopkins Hall, on Monday, October 20, at 4 o'clock p. m., for the purpose of giving expression to their respect for his memory.

The proceedings of that assemblage shall be recorded in the minutes of this Board.

On motion the above was unanimously adopted.

FRANCIS T. KING, *President.*
GEO. W. CORNER, *Secretary pro tem.*

III.

ACTION OF THE ASSEMBLED BODIES.

The meeting was then organized with Judge G. W. Dobbin as chairman, and Dr. Wm. Hand Browne as Secretary.

President D. C. Gilman then addressed the meeting in the following words:

Remarks of President Gilman.

We have been called together this afternoon in this familiar hall, to consider the life and example of one of the oldest and most honored Trustees of the Johns Hopkins foundations. We have met by ourselves simply to commemorate the relations of Judge Brown to this University and this Hospital. When our deceased friend had completed not long ago his judicial life, the members of the bar assembled and paid a tribute of respect to his services upon the bench,—and when he went to Europe a short time afterwards, the representatives of the educational and literary foundations, to which he belonged, united in showing him their regard. It is desirable that the entire life of such a citizen should be carefully reviewed by some skilful pen and his example be held up to the young men of this community. But to-day we have met for a simpler purpose.

If we consider for a moment how grave a matter it is to determine plans for the highest education, and to initiate methods for the relief of human suffering, we shall not fail to remember that there are few stations, if any, in this city, more responsible than that of a trustee in these two foundations.

Judge Brown was qualified for such a place among us by taste, temperament, and training. He had the advantage of a liberal education in the household, at school, at college, and in the study of law. He never changed his residence from the city where he was born, and where his ancestors had resided,—so that he was in the fullest sense a Baltimorean. Yet he enlarged his experience by travel in this and in foreign lands. He devoted himself assiduously to the duties of his profession and acquired distinction as one of the authors of the first volume of the Maryland Digest; as a counsellor in important cases, as a professor of constitutional and international law, and finally as the Chief Judge of the Supreme Bench in Baltimore. He went into politics, in the spirit that should animate every good citizen, neither seeking nor refusing office, and always studying the public welfare. Beneath his gentle manners, dwelt the courage of a lion. Faithful and fearless, he defended the principles in which he believed without the slightest regard to his own popularity,—more than once at the risk of his life. Selfishness was as foreign to his nature as cowardice or insincerity. There were none so obscure or humble that he would pass them by; none so wayward that he would hesitate to befriend them. In suggestions for the advancement of learning he was fertile and persistent; toward the suggestions of others he was always responsive.

Thirty-four years ago, he wrote an appeal for the establishment of a free library in Baltimore; fifty years ago he was one of the originators of the Bar Library; twenty-one years ago he delivered an address on the need of a higher standard of education in the United States. The University of Maryland made him one of its Board of Regents. St. John's College elected him a trustee. Other institutions solicited his counsel,—and among them the Maryland Historical Society, in which the local records of the past are faithfully cherished, was particularly dear to him.

It was fortunate for Baltimore that when the day of large gifts dawned there were here so many men like Judge Brown,—not a few of them still living among us, revered and beloved,—men who had broad views, generous purposes, lofty ideals; men who were not governed by sectional or sectarian, or selfish motives in the promotion of learning; men who sought for the best, and strove for the best, and were never satisfied with the second best. The citizens of this place, the students who are here attracted from every part of the land, the suffering who may here find relief from their ailments, the lovers of music, of literature, of science, and of art can never be too grateful to those painstaking, unpaid, enlightened, and inspiring

men who by their unseen labors, their wise counsels, and their noble spirit have made the City of Baltimore one of the most favored places in the land.

Judge Brown was included by Mr. Peabody among the original trustees of the Peabody Institute (of whom but two are now left), and for years he served upon some of the most important committees of that Board. Mr. Hopkins included him among the original trustees of this University, where for seven years he has acted as Chairman of the Executive Committee. In the organization of the Pratt Library, the founder early sought his counsel, and selected him as one of his original trustees. He became by election a member of the Board of Trustees of the Johns Hopkins Hospital. The enumeration of his public services would not be complete were it to omit the arduous and unappreciated labors which he bestowed upon the subject of public education as one of a Committee to consider the improvement of the public schools of this place. Without completing the list of his services to education, I will only add that Judge Brown was everywhere regarded as one of the wise men of the Commonwealth, and that his services to this University can never be too highly appreciated, or too gratefully remembered.

I dare not trust myself to speak of our personal loss. Every hour of every day as I sit before his likeness I am reminded of his unfailing hopefulness, even in times of uncertainty and anxiety; of his patient attentton to those little perplexities which must be considered if an institution so complex as this is to have a prosperous course; of his readiness to contribute in money to the many objects in a university which are not a proper charge upon the public chest and his prompt contribution, while abroad, to our emergency fund; of his cheerful smile, of his cordial greeting, of his sympathy in trial, of his calm, wise, and trustworthy counsel. He did not talk much of religious matters, but I have had many conversations with him on the most sacred themes, and it was always evident that he dwelt in the conscious presence of the Infinite and the Invisible. "He was not, for God took him."

Remarks of Dr. H. B. Adams.

Dr. H. B. Adams then spoke of Judge Brown's interest in and connection with historical studies.

In the course of his remarks, he referred to the more important pamphlets written by Judge Brown, and read several characteristic sentences from them, and he called special attention to the constant interest of their author in the Historical Seminary of the Johns Hopkins University. The substance of his remarks is given in the following notes.

Among the more important contributions of Judge Brown to historical science and education are the following publications and addresses. (1) A Discourse on the Origin and Growth of Civil Liberty in Maryland, delivered before the Maryland Historical Society, April 12, 1850, when Judge Brown was thirty-eight years old. In this address Judge Brown emphasized the fact that the civil liberties of Maryland and of our American Commonwealths are not due to proprietary grants or chartered rights, but to immemorial customs of self-government brought by English colonists to this country. In Maryland, after a long conflict with the proprietary, the common freemen established the principle, in 1722, that all legislation should originate with the people. Judge Brown described the important part played by Baltimore in the American Revolution, and showed from original records the good work done by committees of observation and correspondence in town and country. One of his own ancestors served upon the Baltimore committee. It is interesting to recall Judge Brown's life-long interest in the Maryland Historical Society. He was chiefly instrumental in securing the transfer of the colonial and revolutionary archives from Annapolis to Baltimore, and in obtaining a State appropriation for their publication. (2) An address before the students of Rutgers College (Judge Brown's Alma Mater), on "The Old World and the New." This address was given in 1851, after Judge Brown's first visit to Europe. (3) An address to the literary societies of St. John's College, Annapolis, in 1869, soon after his second visit to Europe, on "The Need of a Higher Standard of Education in the United States." In this address, published seven years before the Johns Hopkins was open to students, Judge Brown said "a great university hereafter to be established in Baltimore, has been planned by the wealthiest of her citizens, a native of this county, and at some future day we may confidently expect that it will be so liberally endowed out of his large fortune as to enable it to take rank among the first and most useful universities in the land." (4) An unpublished address to the students of the Historical Department in 1879, upon the subject of Von Holst's Constitutional History of the United States. (5) "Baltimore and the Nineteenth of April, 1861." This was the most important of Judge Brown's contributions to historical literature, and was published in 1887 as an extra volume of the University Studies in Historical and Political Science. Judge Brown gave the Historical Seminary an interesting summary of his work in advance of its publication. The book was reviewed by Dr. Jeffrey R. Brackett, who said of it: "It is to tell the truth of things that have often been misunderstood that Judge Brown, always a prominent citizen of Baltimore and its Mayor in 1861, has turned back to those bygone days." Judge Brown narrated the facts leading up to the 19th of April, 1861, in a calm and dispassionate manner, which commands the respect of historical students. (6) Judge Brown's last address to the Historical Seminary was in the autumn of 1888, just before his third and final visit to Europe. His subject was the Municipal Development of Baltimore, an encouraging review of the progress of this city and a striking contrast between its present good order and the lawlessness which prevailed in early days.

The evening before Judge Brown's death he was reading, in the September number of the *Atlantic Monthly*, John Fiske's admirable article on "The Disasters of 1780." The copy which he held in in his hands bears appreciative marks in that neat style always characteristic of Judge Brown. A leaf is turned down at page 349, where Mr. Fiske has paid a merited tribute to the heroism of the Maryland Line in the disastrous Southern campaign so miserably conducted by General Gates, the hero of Saratoga. Judge Brown was deeply impressed by Mr. Fiske's interesting narrative and by the generous recognition which he, a Northern man, had given to Southern troops. The Judge commended the article to his eldest son, who also read it through that very night at Lake Mohonk. The next day the Judge spoke again of Mr. Fiske's article in the most complimentary way and said that he hoped some student at the Johns Hopkins University would undertake a history of "The Maryland Line," which had never received its due in previous accounts of the Revolutionary War. This was Judge Brown's last reference to the State and the University which he loved so well. May this last suggestion bear historic fruit!

Professor B. L. Gildersleeve then read the following minute as expressing the sense of the meeting and moved its adoption:—

Adoption of a Minute with Respect to the Memory of Judge Brown.

The Trustees, President, and Academic Staff of the Johns Hopkins University, with the Trustees, President, and Officers of the Johns Hopkins Hospital, assembled to do honor to the memory of their associate, counsellor, governor, friend, the late George William Brown, desire to put on record their appreciation of a character marked by rare courage and rarer kindliness, of an intellect which owed the reach of its vision to the serenity of a pure and fearless soul, which owed the justice of its insight to quick sympathy with the springs of humanity.

Few men have lived in any community that have been so closely identified with so many movements for the public good, and of these few he was always among the first, often the very first to go forward—a man wise in counsel, diligent in performance, and whether in deliberation or in action living and moving under a sense of duty to his own ideal of citizenship, that was at once an example and an inspiration. Breadth of view, fearlessness and purity of soul, wisdom in counsel, ready sympathy, the priceless experience of a life consecrated to high ideals—all this being his, was ours, and was counted among the sources of the power of these foundations which he served so faithfully from the beginning, was counted and will count to the end of time.

Impossible though it be to suppress the natural sorrow for our personal loss, for the loss to the University and to the Hospital, no more beautiful close could have been wished for a course that had stretched through so many years of arduous labor and high achievement: and we know that the memory of a life so rounded and complete will abide in strength, and even beyond that memory, the good which he has wrought and which we here reverently recognize.

C. Morton Stewart, Esq., seconded the motion and added the following words:

Remarks of C. Morton Stewart, Esq.

Sometimes when our autumn twilight is fading into the darkness of the night, a halo of promise proclaims the resurrection of another morn and the brightness of another day. Such is the symmetry of some characters, such is the devotion of some lives to principle, that the sunset of their existence declares with equal precision the dawn of a blessed eternity for them.

I come here, Mr. President, as no mourner, in sorrow and in grief, but in the solemn and reverent attitude of confidence that a life so full of age, so full of honors, so full of gentleness mingled with firmness, may pass away even with the resignation of those who loved our departed friend the most, because they knew him the best.

The advantage to be derived from such meetings as the one we now hold, lies in the fact that we are permitted to extend sympathy to the living,—to express respect for the dead,—and to hold on high the torch-light of fame, so, that while we cherish the memory of our colleague, we can live in the light of his example.

The motion having been unanimously adopted, the meeting adjourned.

Biographical Note.

George William Brown was born in Baltimore on October 13, 1812. At the age of sixteen he entered Dartmouth College, New Hampshire, and afterwards Rutgers College, New Jersey, where he was graduated with the highest honors in 1831. Returning to Baltimore, he studied law in the office of Mr. John (afterwards Judge) Purviance, and in two years was admitted to the bar. In 1839 he formed a partnership with Frederick W. Brune, Jr., whose sister he married—a partnership which continued until 1873 when Mr. Brown was elected a judge.

During the Bank of Maryland riots, in 1835, Mr. Brown joined the volunteers who, under the command of General Samuel Smith, suppressed the disturbances and restored order to the city.

Mr. Brown was one of the foremost in the reform movement of 1858, the object of which was to purge the city of the spirit of lawlessness which had grown to formidable proportions among a certain class, culminating in open defiance of the laws, almost daily deeds of violence, and several shocking murders. The body of law-abiding citizens, under the leadership of Mr. Brown and others, formed a Reform Association, and by their vigorous and courageous action, at very considerable personal risk, they crushed the lawless spirit, and brought some of the leading offenders to justice while the others fled the city. Measures were passed to secure good order at the polls and protect voters from the violence, intimidation, and other shameful practices which had become common, and to secure the peace of the city and safety of the citizens.

Mr. Brown's energetic and fearless action raised him high in the esteem of his fellow citizens, and in 1860 he was elected Mayor of Baltimore by a large majority. During his Mayoralty occurred the memorable outbreak of the 19th of April, 1861, when the Sixth Massachusetts Regiment was attacked by an excited crowd while marching through the city. The Mayor, on hearing of the disturbance, instantly hastened to the spot, ordering at the same time the Marshal of Police to follow with a force to act as a guard. Regardless of the danger to his own person, Mayor Brown placed himself at the head of the soldiers and marched with them, appealing to the infuriated mob to preserve the peace. By the measures which he immediately took, and a personal appeal made by himself and other prominent citizens to the President to forbid troops from being sent through Baltimore, a repetition of the outbreak was prevented.

In the exciting times which followed, Mayor Brown exerted himself to the utmost to preserve the peace of the city, until September, when he was arrested by a military order and imprisoned, first in Fortress Monroe, then in Fort Lafayette, and Fort Warren. During this time various overtures were made to him on the part of the Federal Government but coupled with conditions which he could not accept, and in November, 1862, he was released unconditionally. On his release, Mr. Brown returned to his legal practice, until October, 1872, when he was elected, without opposition, Chief Judge of the Supreme Bench of Baltimore City. In 1882, Judge Brown, having reached the age of seventy years, would have been obliged to retire under the law; but a special enabling act of the Legislature authorized him to continue in office to the end of his term. His term as judge expired in October, 1888. He died quite suddenly at Lake Mohonk, N. Y., Sept. 5, 1890.

Mr. Brown was one of the founders of the Bar Association, and its president, a regent of the University of Maryland, one of the founders of the Maryland Historical Society, one of the original trustees of the Johns Hopkins University, a trustee of the Johns Hopkins Hospital and Peabody Institute, a visitor of St. John's College, and a director of the Enoch Pratt Free Library.

Besides public addresses and lectures, Judge Brown published several historical monographs, one of the most interesting of which is "Baltimore and the 19th of April, 1861," an authentic narrative of the occurrences before referred to.

IN MEMORIAM.

Henry J. Bigelow, M. D.

No man of his generation labored more effectually to make American surgery known and esteemed throughout the world than Dr. Henry J. Bigelow, whose death took place on the 30th ult. In his practical association with the introduction of anæsthetics, in the researches on the hip joint and still more in the revolutionary work on litholapaxy, he gave hostages to fortune and his name will go down to posterity with those of the great surgeons of the century.

MEDICAL SCHOOL FUND.

At a meeting of the Board of Trustees of the University, October 29, 1890, the following letter was presented:

"The committees formed for the purpose of raising a fund to procure the most advanced medical education for women, can now place at your disposal the sum of one hundred thousand dollars for the use of your medical school, if you will, by resolution, agree that women whose previous training has been equivalent to your preliminary medical course, shall be admitted to the school, when it shall open, upon the same terms which may be prescribed for men. There can be no doubt that women ought to be trained to act as nurses for sick women. There is as little doubt that a sufficient number of women ought to be educated and trained in such manner as to be fully able to care for sick women who may wish or ought to be treated by women. We have devoted ourselves to the furtherance of this object. We have reason to hope that a university which proposes to found a medical school intended to teach advanced methods in treatment of those diseases which afflict mankind, will not refuse to women the opportunity of learning such methods. There is now a general interest in our movement. In order that this interest may be sustained we ask you to consider our offer at the earliest possible period.

"NANCY MORRIS DAVIS.
"*Chairman of the Baltimore Committee.*"

The following minute was adopted by the Board:—

"The President and Board of Trustees of the Johns Hopkins University have received from Mrs. Nancy Morris Davis, chairman of one of the committees formed for the purpose of raising a fund to procure the most advanced medical education for women, the gratifying intelligence that one hundred thousand dollars has been raised for the use of their intended medical school, and is at their disposal if they will, by resolution, agree to the terms upon which the money was contributed by its donors. These terms are that this board, if it accepts the fund thus raised, shall agree, by resolution, that when its medical school is opened women, whose previous training has been equivalent to the preliminary medical course prescribed for men, shall be admitted to such school upon the same terms as may be prescribed for men. The offer to this university of the particular fund is the free, voluntary act of women residing in this state and in other states, made without the suggestion or solicitation of this board, and we accept it under and subject to the terms which are made a part of the gift, with the understanding and declaration, however, that such preliminary training in all its parts shall be obtained in some other institution of learning devoted in whole or in part to the education of women, or by private tuition.

"The fund so contributed shall be invested, and known as the 'Women's Medical School Fund;' and that fund and all interest to accrue thereon, and all additions made thereto for the same purpose, shall remain invested for the purposes of increase only until, with its aid as a foundation, a general fund has been accumulated amounting to not less than five hundred thousand dollars, and sufficient for the establishment and maintenance of a medical school worthy of the reputation of this university, and fully sufficient as a means of complete medical instruction. Then, and not until then, will a medical school be opened by this university; and then, and not until then, will the gift now offered be used by this university; and then, and not until then, will the terms attached thereto be operative.

"The utility of a training school for women nurses has been demonstrated by the experience and practice of the Johns Hopkins Hospital and by the necessities of home life among our people.

"This board is satisfied that in hospital practice among women, in penal institutions in which women are prisoners, in charitable institutions in which women are cared for, and in private life when women are to be attended, there is a need and place for learned and capable women physicians, and that it is the business and duty of this board, when it is supplied with the necessary means for opening its proposed medical school, to make provision for the training and full qualification of such women for the abundant work which awaits them in these wide fields of usefulness. Nothing contained in this minute shall be construed as abridging, in any manner, the right of the board of trustees of the Johns Hopkins University to make such rules and regulations as they may deem necessary for the government of its school of medicine when it is organized, and in making such rules and regulations the terms of this minute shall always be respected and observed."

Before the action of the Trustees, a letter advising the acceptance of the gift, was presented to them, with the signatures of Dr. Hurd, Superintendent of the Hospital, Dr. Osler, Chief Physician, and Dr. Kelly, Gynecologist. An additional letter from the gentleman last named was also received.

Subsequent to the action of the Trustees, the following letter from President D. C. Gilman to Mrs. Henry Winter Davis, Chairman of the Baltimore Committee of the Women's Medical School Fund, was made public:

"Since I came home from Europe many persons have asked me for an expression of opinion with respect to the undertaking in which the ladies of Baltimore and their friends in other parts of this country have been engaged, but as no communication had been received by our Trustees, and as no official action had been taken by them, I have not been willing to say anything which could be regarded as an official utterance. But now that the proposition of the committee of ladies has been formally presented to the Trustees and unanimously accepted by them, I beg leave to say to you, and through you to the committee of which you are the chairman, that I am sure your efforts will result in great good. I admire the intelligent and persistent enthusiasm with which your colleagues and associates have prosecuted their work, and I congratulate them on having been able to offer to the University so large a sum as the first contribution toward the endowment of our medical school and upon conditions from which there is no dissent. Most if not all of the difficulties which have been suggested appear to have vanished under the wise and conciliatory measures adopted by your committee, and any minor differences of opinion that may still exist are of little consequence in face of the great end that we all have in view. Without doubt the University and the Hospital here founded are to be a great power in the advancement of medical education, and it is but right that those women who wish to study and practice the healing arts should have, if properly prepared, the highest opportunities that can be afforded. I hope it is not presuming too much if I add one more remark. It would be a noble act, a memorable event in the history of higher education, if the women of this country should complete the endowment which they have so successfully initiated."

To further the endowment of the Medical School, the Trustees of the Hospital invited the members of the various Committees to visit Baltimore, to partake of a luncheon, and to inspect the buildings. The visitors included Mrs. Benjamin Harrison, Mrs. Dimmock, Mrs. Hobson, Mrs. B. H. Warder, Miss Caroline Henry, Mrs. R. P. Porter, Mrs. A. B. Hagner, Miss Clara Barton, Mrs. J. S. Billings and many others of Washington; Mrs. J. Dundas Lippincott, Dr. Alice Bennett, Dr. White, Mrs. Casper Wistar, Mrs. A. A. Blair, Miss A. Hallowell, Miss Mary Vaux, Miss M. Carey Thomas, Rev. Dr. Furness and others of Philadelphia; Dr. Blackwell, Dr. Cushier, Dr. Jacobi, Mr. and Mrs. E. L. Godkin, Mr. and Mrs. R. W. Gilder, Mr. and Mrs. L. C. Tiffany, Dr. H. D. Noyes, Dr. Derby and others of New York; Mrs. E. E. Jackson of Salisbury; Mr. and Mrs. Jacob Tome of Port Deposit; Miss Horsford, Mrs. J. T. Fields of Boston; Mrs. Samuel Bowles, Mr. and Mrs. Southworth, Mrs. Whiting of Springfield; Judge Dobbin, Francis T. King, Mr. and Mrs. Geo. W. Corner, Mr. and Mrs. W. T. Dixon, C. J. M. Gwinn, Mr. and Mrs. Joseph P. Elliott, President and Mrs. Gilman, Prof. and Mrs. Remsen, Mrs. Henry Winter Davis, Miss Mary Garrett, Dr. James Carey Thomas, Dr. and Mrs. Martin, Dr. Welch, Dr. Osler, Dr. Halsted, Dr. Kelly, Prof. and Mrs. Rowland and many others of Baltimore.

After the luncheon which was served at the Nurses' Home was completed, Mr. Francis T. King the President of the Trustees of the Hospital said:

"It gives me great pleasure to extend to you, on behalf of the Trustees, a hearty welcome to the Johns Hopkins Hospital. Your presence here to-day on behalf of the Committees which you have recently formed will be an epoch in the history of the Johns Hopkins University and Hospital and in the higher medical education of women in this country. Medical colleges for women have been successful, but a post-graduate course, the same that men have, is greatly needed, and I hope through your efforts and ours that we will soon be able to give it here."

Dr. Mary Putnam Jacobi of New York, then responded in behalf of the invited guests. Dr. Jacobi said:

"I do not think I shall be accused of exaggeration by any of the ladies on whose behalf I speak, when I say that this is really a great occasion. As the term greatness is relative, I can explain what I mean best by comparing it with something else. When Goethe was asked to interest himself in the French revolution, he said that the French revolution did not interest him at all; that he considered the speculations, which were then being carried on in France by Lamarck, on the origin of the species as far more important. For these were concerned with an idea, and an idea far outlasted in permanent influence any political turmoil. Something in the same way we may say—that we are here to-day under the inspiration of two ideas, either of which tends to dwarf the significance of even such political turmoil as that which has just prevailed among us. There is, in the first place, the idea that medical education properly belongs to a university; that it is an intellectual matter, and not a mere trade, to be practiced for pecuniary profit; and then there is the further idea, and which more especially concerns us, that women are to participate to the full in this intellectual aspect of medicine, and to follow it to the highest plane of intellectual development to which it can be carried. This, I repeat, is another great idea. It is the first time it has been distinctly enunciated, at this plane of thought, on the American continent. Throughout the West it is true the most generous intention has been developed, for women to enter all departments of the principal universities, but in none of them has medical education reached the plane that is intended here.

"It is interesting to contrast what has been done here with what has been done in Europe. The majority of European universities have opened the doors of their medical as of their other schools to women. This has been a gift from above, with very little popular demand, and without the aid of either popular effort or private munificence. But here it is the women themselves who have been aroused to feel the necessity of these higher intellectual opportunities for women and to exert themselves personally and energetically to secure them. For the munificence of the noble woman who has initiated this enterprise, for the generous energy of the others who have so nobly sustained her, we medical women do feel especially and profoundly grateful. It is a great occasion, and once more, Mr. President, on behalf of all the guests whom you have gathered together, I thank you."

Dr. Henry M. Hurd, the Superintendent of the Hospital, then said:

"Although you may have failed to find any allusion to the matter in the card of invitation, it is none the less an 'open secret' that we are all warmly interested in the speedy establishment of a medical school in the Johns Hopkins University where medical study shall be pursued with as much breadth and thoroughness as any one of the courses which lead up to degrees in the Johns Hopkins University.

"To constitute this university medical course, three requisites are at once apparent:

"1. A thorough-going, well-ordered under-graduate school to lay a broad foundation of general and scientific training for subsequent medical study—in short, a preliminary medical course, such as now exists, and has existed for several years at the University, and which, I am glad to say, is to be found at, at least, one of the colleges for women. Here chemistry, biology, physiology, histology, bacteriology, and physics should be taught in well-arranged laboratories by earnest teachers.

"2. A school of applied medicine for instruction in the science and art of medicine, pure and simple, for the study of anatomy, medicine, surgery, gynecology, obstetrics, pharmacology, morbid anatomy, morbid histology, etc. Here lectures, recitations, demonstrations and laboratory instructions should be combined.

"3. A hospital for practical medical teaching at the bedside, in the operating room and among the sick poor in the dispensaries, and facilities for advanced or post-graduate work in the various medical and surgical specialties.

"Of these three requisites to the school which we hope to see established, the first and third now exist, and the connecting link—the school of applied medicine—only needs to be supplied. The University and the Hospital already furnish facilities for the broadest and best training in their respective spheres of instruction. In fact, I may say that much of the work which the University has so well done during the past fourteen years has been preparatory to the ultimate establishment of the medical school, and has constantly had this school in view. A chemical laboratory, second to none in the country; a biological laboratory, with facilities for the study of biology, physiology, histology and comparative anatomy; a physical laboratory, with every facility for research work—these have been erected by the University at a cost of nearly or quite half a million of dollars, and men who are eminent in their various departments the world over have been found to preside over them and to direct their work. The same is equally true of the Hospital. In its construction the work of medical teaching was constantly in mind, and expenditures were made on every side to enable it to best fulfil this mission, and the plan of the Hospital—the pavilion plan—from the inception of the enterprise had a proper regard for future growth, and the ready addition of any buildings or departments which might be found essential to better medical instruction. In the direct line of teaching medicine, and without any formal medical school, we already have pathologists, physicians, surgeons, gynecologists, hygienists who are eminent as teachers; and pathological, bacteriological, clinical, and hygienic laboratories, with approved apparatus for research work and original investigation. The step to systematic medical instruction need not be a long one. Already students are crowding upon us. It is daily more evident that all future permanent work in medicine or surgery must be based upon experimental and laboratory work. Medicine is assuming its proper position among the sciences, and can no longer be considered a mere trade or a handicraft. Those who practice it should have the widest knowledge and the most thorough mental training.

"The University and Hospital are doing all that can be done with present facilities, to promote the acquisition and wide diffusion of medical knowledge. An excellent system of scientific publications has for many years brought the University, and is equally destined to bring the Hospital, into relation with advanced thinkers throughout the world. No medical school which has ever been projected has had as fair prospects of immediate recognition from scientific men or large usefulness. Those who help to endow it can feel assured that it will enter at once upon a vigorous development. The University laboratories are in active operation, the Hospital is fully equipped, a square of ground for the medical school proper has been purchased, plans for the building are maturing, and courses of medical instruction are already outlined. Can the same endowment anywhere else in the world bring a richer or speedier return?"

An inspection of the various wards of the Hospital then followed, under the guidance of the physicians, officers and nurses.

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